The Financial Value of Energy Efficiency: Diverse Perspectives
Heitman is a Real Estate Specialist

50 years
investing on behalf of clients with an exclusive focus on real estate

$39 billion
managed across three complementary business units

38 partners
from across the Heitman platform own 50% of the company¹ and control all strategic and day-to-day operational decisions

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AUM as of June 30, 2017

1. The remaining 50% is owned by a US subsidiary of Old Mutual, a publicly traded, London-based global financial services firm.
Valuing Energy Efficiency

Desirable property and spaces
- Opportunity to innovate and differentiate property
- Updated building systems, lighting and amenities

Higher efficiency equals lower operating expenses
- Less energy, water, waste, and maintenance expense improving NOI

Increased occupancy and rental revenue
- Attraction and retention of occupants leading to shorter lease up time / downtime and improved rental revenue

Improved investment returns
- Enhanced NOI from lower expenses and higher rental income
- Lower investment risk during down cycle valuation
Energy Efficiency in Investment Process

**ACQUISITIONS**

Identify utility expenses, completed energy upgrades and operational control

**DUE DILIGENCE**

Physical property assessment and energy audit with proposed energy project costs and savings

**ASSET MANAGEMENT**

Property plan developed with energy project upgrades and utility tracking begins
Streamlined Tracking and Benchmarking

Measuring what matters
- Heitman, a member of ULI Greenprint Center, utilizes software for portfolio-wide data collection, management, and reporting.

Properties
✓ Energy, water, & waste
✓ Projects
✓ Certifications
✓ Ratings

Measurable
✓ Automate & quality assure utility data collection
✓ Eliminate manual time
✓ Improve data coverage

Energy Star
✓ Achieve Energy Star certifications
✓ Benchmark sites
✓ File city/state regulations

Heitman
✓ Asset +Fund level benchmark
✓ Proactively monitor
✓ Results = $1M energy savings YOY 2015 vs. 2016
Implemented LED lighting replacement program

- LED bulbs and fixtures have a much longer useful life, require less maintenance and lower energy expense compared to standard lighting fixtures

\[
\begin{align*}
$215,000 & \text{ versus } $385,000 \\
\text{for standard lighting/fixtures} & \text{for LED retrofit} \\
\text{minus} & $90,000 \\
\text{annual expense savings from reduced consumption} & \\
\text{equals} & $170,000 \\
\text{incremental cost} & \\
\text{resulting} & 53\% \text{ ROI}
\end{align*}
\]
Company Overview

CBRE Group, Inc. is the world’s largest commercial real estate services and investment firm

2016 revenues of $13.1 billion

75,000 employees in 450 offices worldwide

5 billion square feet of managed properties

2017 Partner of the Year Award 10 consecutive years
What is the Value of Energy Efficiency?

We have an obligation and opportunity due to our size and scale

- 6,000 buildings benchmarked
- 350 Million Square Feet
- 79 Average score
- 16% emissions reduction over last 10 years; eliminating 9.8 million passenger vehicle miles
Why is Energy Efficiency Important?

Financial impact to our clients
- 1% reduction in energy nets $10,500,000 savings across our portfolio; increased asset value of $175,000,000

Investor Interest
- Direct link between sustainability performance and financial performance
- GRESB

Occupant Demand
- Buildings consume 70% of the electricity load in the US
Energy Efficiency Programs

- Over 500 employees engaged in providing energy and sustainability services worldwide
- Global policies require all managed buildings benchmark in Energy Star Portfolio Manager
- Over 20,000 attendees of BOMA BEEP Training
- Contribute to academic research – Green Building Adoption Index
Fannie Mae Multifamily Green Financing

ENERGY STAR® Commercial Building Partner Meeting: The financial value of energy efficiency
Chicago, IL
October 25, 2017
### Fannie Mae Multifamily DUS® Risk-Sharing and Delegation Model

<table>
<thead>
<tr>
<th>Borrower</th>
<th>$ Loan</th>
<th>DUS® Lender</th>
<th>$ Mortgage</th>
<th>Fannie Mae Multifamily</th>
<th>$ MBS</th>
<th>MBS Investors</th>
</tr>
</thead>
</table>

#### Origination
- Applies for loan
- Originate the loans
- Sets loan documentation and delivery protocol

#### Underwriting & Servicing
- Borrower and property evaluated as part of underwriting
- Underwrites and services the loans in accordance with Fannie Mae standards and requirements
- Sets underwriting standards and servicing requirements
- Performs quality control on underwriting and servicing
- Creates Mortgage Backed Securities
- Rely on standard underwriting
- Require periodic property performance information

#### Risk-Sharing (private capital at risk)
- Contributes 20%+ equity
- Shares in 1/3 of the credit losses
- Shares in 2/3 of the credit losses

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Fannie Mae Multifamily has a unique risk-sharing model and alignment of interests.

**Note:** Example illustrates pari passu loss sharing

Source: Fannie Mae Multifamily
Fannie Mae Multifamily Green Financing targets a positive, measureable impact to each pillar of the Triple Bottom Line.

**Financial**
- Lower credit risk
- Higher cash flows
- Higher property value

**Social**
- Greater affordability for tenants
- Higher quality, more durable housing
- Healthier housing

**Environmental**
- Lower use of energy, water, and natural resources
- Greater resiliency to natural disasters
Two Paths to Fannie Mae Green Financing

**Already Green?**

**Green Building Certification**

- Benefits:
  - Preferential Green Pricing

- To Qualify:
  - Property has one of the recognized Green Building Certifications in place by Rate Lock

**Investing in Retrofits?**

**Green Rewards**

- Benefits:
  - Preferential Green Pricing
  - Free Energy and Water Audit
  - Increased Loan Proceeds

- To Qualify:
  - Choose to implement Green improvements projected to reduce energy or water consumption by 20%

Go to [www.FannieMaeGreenFinancing.com](http://www.FannieMaeGreenFinancing.com) for more details!
Case Study #1: Reducing water costs and accessing additional loan proceeds

<table>
<thead>
<tr>
<th>Green Rewards Loan</th>
<th>$22.8M, Acquisition, Fixed Rate</th>
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</thead>
<tbody>
<tr>
<td>Property</td>
<td>156 units, 1984 construction</td>
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<tr>
<td>Budget / unit</td>
<td>$301</td>
</tr>
<tr>
<td>Improvements</td>
<td>Low-flow faucets</td>
</tr>
<tr>
<td></td>
<td>Low-flow showerheads</td>
</tr>
<tr>
<td></td>
<td>Low-flow toilets</td>
</tr>
<tr>
<td></td>
<td>Drip irrigation</td>
</tr>
<tr>
<td></td>
<td>ENERGY STAR® washing machines</td>
</tr>
<tr>
<td>Additional Loan Proceeds /</td>
<td>$8,253 savings underwritten;</td>
</tr>
<tr>
<td>Underwriting</td>
<td>1% additional proceeds</td>
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</tbody>
</table>

**Energy/Water Use Reduction**  4% Energy, 20% Water
Case Study #2: Accessing significant savings from new central systems

<table>
<thead>
<tr>
<th>Loan</th>
<th>$5.6M, Refinance, Fixed Rate</th>
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</thead>
<tbody>
<tr>
<td>Property</td>
<td>60 units, 1966 construction</td>
</tr>
<tr>
<td>Budget / unit</td>
<td>$2,300</td>
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<tr>
<td>Improvements</td>
<td>Replace heating plant</td>
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<tr>
<td></td>
<td>Replace hot water boiler</td>
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<tr>
<td>Additional Loan Proceeds /</td>
<td>$23,550 savings underwritten;</td>
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<tr>
<td>Underwriting</td>
<td>2.7% additional proceeds</td>
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</tbody>
</table>

Energy/Water Use Reduction 23% Energy, 0% Water
DMPS – PreK-12 Education

• 6M Square Feet Under Roof
• 72 Facilities
• Average Age of DMPS buildings = 65 years
• Nearly 33,000 students
• 74% of our students qualify for free or reduced lunch
• Mission: The Des Moines Public Schools exists so that the students graduate with the knowledge, skills, and abilities to be successful at the next stage of their lives.
Value of Energy Efficiency - District
A BIG Math Problem

• Currently 83% of our general fund is staff
• New state money is currently 1% (outlook not good)
• Increasing utility rates
• Added square feet
• Ability to improve student environment using less operational dollars
• Saving energy costs was one of our few options we could control
• Maintaining student centered programs
Direct Relationship to ES

- **2007-08**: $5,990,555.00
- **2008-09**: $5,198,746.00
- **2009-10**: $4,593,606.00
- **2010-11**: $4,211,579.00
- **2011-12**: $3,587,398.00
- **2012-13**: $3,916,588.00
- **2013-14**: $4,541,812.00
- **2014-15**: $4,210,790.00
- **2015-16**: $3,986,514.00
- **2016-17**: $4,261,304.00

*% of Buildings Districtwide:
- 2008: 0%
- 2009: 37%
- 2010: 54%
- 2011: 59%
- 2012: 74%
- 2013: 78%
- 2014: 64%
- 2015: 66%
- 2016: 79%
- 2017: 82%

Prediction for 2017: currently in application process

% DMPS Buildings ENERGY STAR® Certified
Community Value

- Neighborhood enhancement/opportunities
- Keeping our community working. Estimate 60% of dollars spent on projects is labor…supporting families
- Sustainability strategies – 41 geothermal systems in place
- Other improvements include CR climate control, polished concrete standard, controls, mechanical/electrical, eliminating pneumatics, solar hot water heating, LED conversions
Messaging to Taxpayers
Telling the story

• Developing trust.

• Our communities expectation is for us to optimize our resources. They want to hear we are saving dollars.

• Providing (and maintaining) key performance indicators.

• Smart use of public resources. Return on investment. Beating inflation by bonding ahead.

• Communication – Monthly energy report card to staff and community, newsletters, virtual backpack, community presentations.